JobTech

Project Purpose

The vision of the Technology For All (TFA) JobTech program is simple-- to **create livable wage jobs** in low-income communities through an **innovative utilization of technology tools** connected to and utilized by existing Community Technology Centers (CTCs) serving those communities; and to train and employ persons for those jobs within walking distance of their homes by utilizing a **sustainable business model** that leverages and builds on existing community technology capacity in community-based and faith-based organizations.

The Problem **--** A problem in many low-income communities **is the lack of available livable wage jobs** often caused by the lack of a skilled workforce and the business investment to employ such a workforce. Because of these problems, high poverty and unemployment are often typical in low-income communities. CTCs serve many of these communities.

Despite the strong economy of the 1990's, a high proportion of residents, especially children, continue to live at or below the poverty level in many Houston communities. About 19 percent of the Houston population is below poverty; 26% of children below age 18 live in poverty. Much higher levels exist in many neighborhoods in the city where unemployment is higher and educational attainment levels are significantly lower.

Like many low-income urban and rural communities across the U.S. these neighborhoods are served by community-based and faith-based organizations that have developed community technology centers. In Houston TFA's local affiliate, Technology For All-Houston (TFA-Houston) has assisted in the development of over 160 community technology centers in collaboration with organizations serving low-income communities. These CTCs have a clear sense of mission but, with limited resources, often struggle to meet an overwhelming demand for services.

JobTech seeks to address three specific problems that exist in Houston, as well as in other urban and rural low-income communities across the U.S.:

- **Lack of available livable wage jobs in low-income communities**
- **Lack of a skilled workforce in low income communities**
- **Decreased funding and available resources for community technology initiatives serving those low-income communities.**

In three of Houston's eighty-eight (88) super neighborhoods there exists an unique opportunity to create livable wage jobs and develop a skilled workforce for those jobs that will help those communities begin to overcome the effects of poverty and build upon the existing capacity and credibility of the CTCs serving those communities.

Unemployment and poverty levels in the Houston Heights, the Greater Third Ward and the Pecan Park community in Houston's East End are significantly higher than the rest of the city. These three communities include both Houston's growing Latino population and the African American population of the Third Ward in the shadows of downtown. They represent only 4% of Houston's population, yet a far greater percentage of its children and families living below poverty.

Compared to other areas of Houston, the neighborhoods targeted by the JobTech project are among Houston's least educated. Barely one third (35.82%) of the population over age 25 has a high school diploma, compared to 70% of Houston's population. Twenty-seven per cent of the city's population has at least a Bachelor's degree. Less than 6% have degrees in the Pecan Park community in the Greater East End.

Pecan Park is a neglected community. Rapid demographic changes are taking place while limited social services have been established to address the huge needs that those changes have

brought about. Established prior to World War II, its close proximity to the Port of Houston made Pecan Park a popular location for workers in Ship Channel Industries. Sixty years ago a mostly middle class Caucasian population lived in Pecan Park, which today is over 84% Hispanic with a poverty level of 36.7%.

Because of community needs and limited social services in Pecan Park, TFA and TFA-Houston made a conscious choice to locate the "hub" of their Houston community technology efforts in this community and look for creative ways to merge the tools of community technology and community development to make the community a better place. Together, TFA and TFA-Houston operate Misión Milby Community Technology Center (MMCTC) in Pecan Park in collaboration with the Misión Milby Community Development Corporation (MMCDC).

The needs of the initial TOP project focus area of Pecan Park are characteristic of the other two target neighborhoods and low-income communities across the US. Over 57% of the population in the Third Ward lives below the poverty level and 25.6% in the Heights live below poverty. Unemployment ranges from 7% in the Heights to over 11% in the Third Ward.

Pervasive poverty and unemployment put jobs and financial assistance at the top of the list of needs.

The problems addressed by the goals of the JobTech TOP Grant proposal are:

- The identification of high poverty rates in Houston's Third Ward, Pecan Park, and Greater Heights neighborhoods as well as other low-income communities indicates a need for innovative solutions for community economic investment.
- The identification of the social disorganization and transitory nature of these communities that is typical of other low-income communities indicates a need for programs to meet the needs of residents that address assimilation, training, unemployment, and ensure opportunities for jobs with livable wages.
- The identification of decreased funding for CBOs, FBOs, CDCs and CTCs serving low-income communities during a time of increased demand for services indicates a need for replicable and scaleable sustainable business models for programs that address community needs and increase community capacity while reducing dependency on traditional funding from donors and grants.

The Solution **-** The JobTech solution is to **create livable wage jobs** in low-income communities through an innovative utilization of technology tools connected to and utilized by existing CTCs serving those communities. By leveraging and building on existing community capacity, JobTech will **train and employ persons for jobs** within easy walking distance of their homes. This **sustainable business model** will build community technology capacity and reduce dependence on traditional funding from donors and grants. Job Tech will impact low-income persons and their communities in several ways:

First, business investments will be encouraged at three initial sites in three low-income communities through a unique job creation model established first with a for-profit federal contractor and then with other customers.

Second, existing community assets and technology infrastructure will be leveraged to create training opportunities and livable wage jobs in walking distance of client homes.

Third, this model will be evaluated and improved for replication at a fourth Houston site utilizing program income and in additional locations with other CTCs, community-based and faith-based organizations in Houston and across the U.S.

The Anticipated Outcomes **-** Our JobTech goals and outcomes are:

1. Utilizing the recently installed fiber loop infrastructure, create the technical and program capacity for job creation at four CTC sites in three low-income communities.
2. Create forty (40 FTEs) jobs in three locations that will provide livable wages for clients.
3. Utilize the existing STREET U Houston Workforce Development Initiative to train a pool of potential contract employees for jobs within walking distance of their homes.
4. Demonstrate capacity building and sustainability features of this model by utilizing program income to fund program expenses and build additional program capacity.
5. In collaboration with our partners and independent evaluator, document and refine the model for replication and scalability with other CTCs and potential program partners.

Innovation

Technology For All will utilize several innovative tools to achieve the goals of JobTech, including technology innovations and an innovative business models.

First, building on the success of existing community collaborations and technology infrastructure investments TFA will utilize innovative high-speed bandwidth and virtual private network technologies to deliver training and jobs to low-income individuals served by CTCs.

Second, by building on the capacity and community credibility of existing CTCs, innovative sustainable business models requiring less investment will be utilized to outsource work directly to those CTCs and their constituents in low-income communities.

Technology Innovation **-** The Misión Milby CTC was recently connected to a shared 1gigabit fiber loop. The Heights CommuniPOP collaborative is also on the same fiber loop and serves several CTCs in the Houston Heights community. This fiber was funded through collaborative efforts that were included as part of two separate grants totaling over $500,000 from the Texas Telecommunications Infrastructure Fund (TIF). Understanding the unique efforts of CTCs, the Houston Independent School District and Texas Southern University, as TIF eligible entities, included TFA and several of its CTC partners in grant proposals to connect those CTCs directly to Houston's existing educational and business fiber infrastructure that connects universities, Houston's Medical Center, and seven school districts along with Houston's major business centers.

The fiber connecting the CTCs also includes 100 megabits of burstable Internet access and the ability to create Virtual Private Networks (VPNs) between organizations on the fiber and through the Internet utilizing multiple static IP addresses provided at each connected site.

TFA's existing network infrastructure includes several servers and storage devices for internal and external capacity needs connected to the fiber. Building on that investment, TFA will add the capacity to allow for receipt and distribution of document conversion work from outside customers to the network infrastructure at the MMCTC site and distribute that work to the LANs and desktops of trained contract employees at MMCTC and other participating CTCs across the city and eventually the US.

Innovative Business Model – The JobTech model will utilize a unique and innovative relationship with Dimension 4 (a for-profit company from Seattle) and other corporate customers developed by Houston Area Technology Advancement Center (HATAC) to bring outsourced jobs to CTCs serving low-income communities. TFA will formalize the relationship with Dimension 4 and build a business model to generate program income to sustain the program and allow for its expansion.

During the grant period, TFA expects to generate sufficient income to pay all contract

employees and supervisors and add ESVLC as a project site. ESVLC is not currently connected to the fiber loop. Fiber and additional computers for ESVLC will be funded from program income generated by JobTech. While no program income from the grant will be utilized to fund other activities, JobTech will create a sustainable innovative business model for a community technology center program that clearly serves the stated mission of most CTCs.

Community Involvement

TFA has worked with its community partners to create the JobTech project in an innovative and collaborative way that is already building community capacity by bringing together the strengths and best practices of multiple organizations. An Advisory Board of JobTech program partners has been involved in its planning and development. STREET U, the training provider for JobTech was established and developed in the same way.

HATAC, also a STREET U partner, is already developing business opportunities for JobTech through its extensive "Business to Education to Business" relationships. The Telecom Opportunity Institute (TTOI) will provide its basic computer classes for the "Level 1" training portion of the project as it does for STREET U. TFA will provide its SkillSoft facilitated distance-learning model of eLearning for "Level 2" JobTech training, as it does for STREET U.

The University of Houston College of Technology (UHCT) is already building community technology capacity through the provision of student volunteers from its required "Technology in the Community" curriculum. Decision Information Resources will provide independent evaluation services to the project, continuing its vital role as a JobTech partner. The Local Initiatives Support Corporation (LISC) will bring its unique perspective on building community capacity through CDCs. Two CDCs are involved in the project, East Side Village Community Learning Center (ESVCLC) in the Third Ward and Misión Milby CDC.

Through a unique partnership, Houston Independent School District (HISD) and TFA-Houston are working together through a 3-year Texas Education Agency grant to improve math and science scores in ten middle and high schools. TFA-Houston's role is to help HISD engage CTCs in that effort. Six of the targeted schools are adjacent to JobTech CTCs.

TFA-Houston's Misión Milby CTC, East Side Village CTC, and the New/Nuevo Heights CTC are each vital and respected organizations serving communities of need. Each has enormous credibility and has engaged its community in CTC leadership and program development. All have relationships with Houston Community College that provide ESL, ABE and GED classes that supplement to their community technology activities.

Evaluation and Dissemination

Decision Information Resources, Inc. (DIR) will serve as an independent team of evaluators. DIR has assisted in the development of the evaluation and dissemination plan.

The evaluation will be structured to document and assess the approaches used and the experience of the partnership in implementing the JobTech program. There are two major thrusts of the proposed evaluation—an implementation and an outcome evaluation.

The **implementation (or formative) evaluation** will allow DIR to document things that facilitated as well as those that created barriers to implementation. The results of the implementation evaluation will provide feedback and recommendations to the project partnership for continuous improvement of program implementation. The findings from the implementation evaluation will also provide descriptions of activities, presentation of short-term outcomes, and information for disseminating lessons learned through this initiative. Observations and assessment

of the program implementation will be conducted by DIR staff using structured instruments to assess fidelity of the program's implementation to the plan, problems encountered, modifications made in plans and why, sustainability of the business model beyond the grant's funding period, and other issues regarding implementation and use of technology. Specific questions that could be focused on implementation are included in the appendix.

The **outcome (or summative) evaluation** will look at outcomes from two perspectives: (1) to what extent did the JobTech model prove to be a replicable and effective approach for addressing the project's goals; and (2) what was the **outcome** of program participation on those who used the services. The outcome evaluation helps us to answer questions regarding the effectiveness of the planned program. To answer these questions, the evaluation team will collect data from program records to measure trainee completion rates, the number of jobs created, the salary range of the jobs created, and the ability of the program to develop sustainable recurring income for participants. Program records will also allow us to examine differences in outcomes for different participant characteristics, e.g., prior work experience, educational levels, etc. In addition, through surveys, participants will be asked to rate the perceived value of the training received through the project and its value to their labor force participation. Input from employers of the trained participants will also be a valuable source of information on program outcomes. Specific evaluation questions that could be included to measure outcomes are found in the appendix.

Evaluation Strategy - Perceptions of effectiveness and value of the training will be measured through continuous feedback from trainees, employers, and trainers. Program enrollment and performance records will be used to measure participant demographics and characteristics of program participation. Program participants will be tracked to collect updated information on employment and labor force participation. Exit interviews of any trainees that withdraw early will provide valuable information for continuous program improvement.

Trainers and employers of program participants will be interviewed to obtain their perceptions of program implementation and perceived effectiveness. Observations of program implementation by the independent evaluators provide additional input into the successes and challenges in implementing JobTech. All evaluation activity by the independent evaluation partner will provide information for semi-annual formative reports, containing findings and recommendations that are fed into the continuous quality improvement process to ensure JobTech is constantly improved. Ongoing dissemination of lessons learned as derived from evaluation activities will become part of the deliverables shared with other grantees. A final report of findings will be provided at the end of the grant period.

Data Collection - Data collection will be coordinated by DIR. A data collection plan that will link to program implementation plans will be fully developed upon grant award. Data collection will be achieved using a variety of quantitative and qualitative tools, including evaluation instruments administered in collaboration with participating program partners. These tools include observations, program record extraction forms, questionnaires, skills assessments, and in-depth interviews.

Data Analysis -The data sources specified above will generate a wealth of quantitative and qualitative data. Our planned approach organizes data analysis around the evaluation objectives and research questions.

Dissemination - DIR will provide the necessary support for data analysis and work closely with TFA and the project partners to create an appropriate dissemination plan to other CTCs operated by community-based and faith-based organizations. Dissemination will take place through and in

collaboration with TFA's existing CTC relationships such as those supported by TFA-Houston (160) and TFA-Colorado (90) and with umbrella organizations such as CTCNet and LISC.

Project Feasibility

TFA-Houston's Mision Milby CTC and the Heights CTCs participating in the project have recently installed a high-speed (One Gigabit) fiber loop between their CTC sites that also provides a minimum of 100 megabits of Internet Access. This TIF funded capital investment of $331,780 was installed with five years of service costs included. The prorating of this investment will provide some matching funds for the project and allow for its replication across the city after initial goals and deliverables are met at the MMCTC pilot site. The Milby site will serve as the physical and virtual hub for delivery of work projects through Virtual Private Networks created between MMCTC and private industry contractors such as Dimension4 in Seattle as well as participating CTCs.
Technical Approach - Companies such as Dimension4 receive contracts to convert technical drawings or manuals from paper to digitized data. Some aspects of this document conversion work can be sub-contracted to trained neighborhood labor at the CTC. The sub-contracted work by Dimension 4 and other contractors will be delivered to a new server and work distribution system created at MMCTC via a VPN created through the new fiber infrastructure. TFA has up to 64 separate IP addresses available for VPN creation through the new fiber infrastructure.

As the virtual "hub" for work distribution, a supervisor from JobTech will distribute work, from Dimension 4 and other contracts, to the virtual "in-box" of STREET U trained employees at MMCTC and at other participating CTCs as they come on line. Employees will complete work and return it to the customer through the supervisor who will also manage quality control procedures. The supervisor will return completed work via the same or another VPN to Seattle, Washington, D.C. or wherever the work originated or needs to be delivered. This program will allow for work to be completed at anytime the CTC desktop is available to the JobTech contract employee, thus allowing CTC capacity to be utilized 24/7 if desired and planned for.

As model is perfected, trained employees of the program will have the opportunity for advancement to higher order jobs with higher wages. As capacity of the program increases and work orders increase, other CTC work sites will begin operation.

The skills training and employment opportunity model will be created first at Mision Milby, then replicated at the three other Houston CTCs and finally scaled to other CTCs across the US as capacity needs and interest dictate.

Applicant Qualifications **-** Technology For All provides various community technology services to over 300 CTCs in 56 U.S. cities. In addition, it has local affiliates in Houston (TFA-Houston) and Colorado (TFA-Colorado) that help develop and support local community technology centers in their communities. TFA-Houston, established in 1997, has assisted over 160 community- and faith-based organizations establish CTCs. One is the Misión Milby CTC operated by TFA-Houston in collaboration with Misión Milby Community Development Corporation (MMCDC), a faith based CDC established by Milby United Methodist Church. MMCDC was established to serve the Pecan Park Community and has received consulting services from the Local Initiatives Support Corporation in developing its strategic plan that is utilizing the tools of community technology and community development to improve the Pecan Park community.

STREET U will provide training for the project. **STREET U** was conceived by a group of local non-profits coming together in a spirit of collaboration to impact Houston's communities beyond any organization's individual ability. Key STREET U partners include the Houston Area Technology Advancement Center (HATAC), The Telecom Opportunity Institute (TTOI), Technology For All (TFA), and Technology For All-Houston (TFA-Houston). STREET U will be making significant matching cash investments in the project as the training provider.

Project Implementation and Completion - The implementation plan/schedule will include the following basic steps, some of which are concurrent and/or parallel:

1. October 1, 2003-December 31, 2003 - Confirm project deliverables and assemble project management team and advisory board.
2. November 1, 2003 - January 1, 2004 – Confirm staff and partners providing services to project. Complete contracts and/or shared services agreements.
3. January 1, 2004 - Implement STREET U training program at MMCTC for the specific knowledge, skills, and abilities required for JobTech.

a. STREET U Level 1 – Provided by TTOI, two basic computer skills training classes will begin. (On or about January 1, 2004)
b. Level 1b –Provided by TFA-Houston will teach basic computer ownership skills (Begins on or about March 15, 2004)
c. After completing Level 1 and Level 1b, MMCTC students will take the IC3 exam.
d. Upon successful completion and passing the IC3 exam, students will receive a computer refurbished by HISD students to take home. (On or about May 1, 2004)
e. STREET U Level II – Using a "learning path" created for the program, TFA will utilize its online Skillsoft courseware to teach the skills required for JobTech utilizing TFA's facilitated distance learning model. (On or about April 15, 2004)
f. From the initial classes, ten students will be chosen as interns with stipends for a 4-week redundant-work training program at Misión Milby. (July 2004)

4. January 2004 – May 2006 - As students are training, TFA staff and consultants will be installing the equipment necessary within TFA existing network infrastructure to deliver virtual work to Misión Milby CTC and other participating CTCs.
5. April 2004 – May 2004 - A sub-contract for initial document conversion services and other negotiated services provided by Misión Milby CTC will be completed between Dimension4 and/or other contractors as identified.
6. July 2004 – As per "3f" above, completed document conversion work will be utilized as an initial-redundant job-training tool at MMCTC and to test the technical aspects of the program including the secure delivery of work delivered to the desktop of individual PCs and participants. Sub-contracted document conversion services that will be provided to Dimension

4 and other contractors for this program include: a) Document preparation and PDF conversion for electronic distribution from CTC sites to customers; b) Full-text capture through OCR or re-keying; c) SGML, HTML, XML tagging for publishing; d) Image enhancement and clean up; e) Complete indexing to insure ease of retrieval; and f) Scanning of technical drawings locally for raster to vector services by Dimension4 in Seattle.

7. July/August 2004 - The first sub-contracted jobs will be delivered to MMCTC for completion. Ten FTE jobs will initially be created at MMCTC. Ten persons or FTEs will become paid contract employees of JobTech at an hourly wage of $10-18/hour.
8. April 2004 – July 2005 - Based upon the evaluation and lessons learned in the initial MMCTC pilot as well as available capacity and needs, the program will then be scaled to the New Nuevo Heights CTC or another Heights CTC and to East Side Village after fiber or other appropriate connectivity is installed. Additional jobs will be created at MMCTC. Steps for implementation at each CTC will include:

a. Installation and testing of required technical components.
b. Utilization of STREET U initiative to train potential employees of the program
c. Redundant conversion services by selected interns for training purposes and the creation of quality assurance standards.
d. Sub-contracted work completed by new program employees at CTC work sites.

9. April 2004-September 2006 – Business clients for JobTech will be developed by HATAC through its network of business, industry and government relationships.
10. October 2005 – September 2006 - As the program continues and scales, other CTC, CBOs and FBOs serving low-income communities across the U.S. will be recruited for participation. Work will be assigned to employees of the program at participating organizations through the virtual work distribution center created at MMCTC.

As the program scales and is successful, it will become self-sustaining. Program income will be reinvested in the program. Low-income persons served by participating organizations will have the opportunity for job training and livable wage jobs within walking distance of their home. Economic investment by industry in low-income communities will occur as CTCs/CBOs are added to the program. CTC work centers employing persons from the neighborhood will become hubs for additional economic investment in more stable communities.

<u>Specific project deliverables:</u>

1. Install and test the technical components of JobTech that will allow for secure transfer of work between sites and to and from customers.
2. Train a pre-screened group of 30-50 persons for the program in initial MMCTC STREET U classes.
3. Evaluate and improve training for implementation at other sites.
4. Initiate sub-contracts with Dimension4 and/or other or customers.
5. Develop and implement a plan to market JobTech to customers and to CTCs.
6. Identify and employ ten persons at MMCTC in the program.
7. Train 150 persons at other participating sites utilizing the modified and improved STREET U model.
8. By July 30, 2005 have scalable revenue positive business model in place to continue implementation and scalability of the program beyond the grant cycle.
9. By September 30, 2005 (end of TOP grant) employ 30 additional persons in Houston (a total of 40 employees including MMCTC) and begin implementation at other sites as additional capacity is developed.

Privacy and Security - Privacy and security of end users, including customers and CTC clients and contract employees is crucial. As a Defense Department contractor, Dimension 4 is required to utilize various security and privacy tools that protect all parties. Through implementation of a sub-contract with Dimension 4, those security and privacy tools will be implemented in the JobTech project. For example, the creation of a VPN between Misión Milby and Dimension 4 in Seattle will allow for the secure transfer of documents. In addition, Dimension 4 has developed the technology to divide projects into pieces so that "piece" work can be parceled to different work sites. This provides for additional security of sensitive documents that can be understood only as the "puzzle pieces" are put back together by Dimension4 staff in Seattle using its proprietary technology.

Sustainability - The JobTech plan emphasizes sustainability. By the end of the program JobTech will have created forty jobs (42 FTEs including the site supervisors) in three Houston CTCs serving three low-income communities. If each of these jobs average $25,000 annual income, the total economic impact will be over $1,000,000 per year in new wages plus an additional economic impact of $4 million as these persons invest their wages in their communities. Additionally, by combining a $675,000 investment from the TOP program with matching dollars and program income, the participating organizations will have created a sustainable revenue model that supports the program and builds additional capacity to expand the program to other CTCs seeking to bring jobs with livable wages to low-income communities across the U.S.